

IN THE CLAIMS:

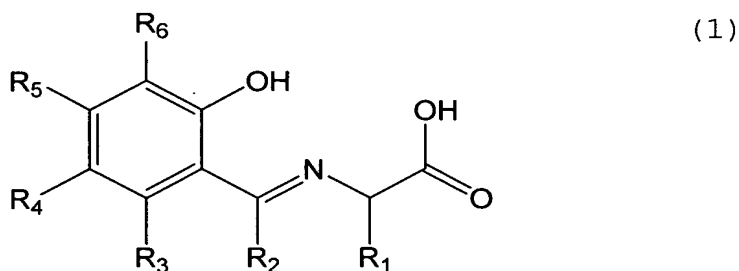
Please amend the claims as follows:

1. (Currently Amended) An electroluminescent device comprising:  
at least an anode;  
a cathode; and  
an electroluminescent layer ~~provided~~ between the anode and the cathode,  
~~having a characteristic of wherein~~ the electroluminescent layer includes a layer formed by co-deposition of an organic compound and a metal salt, and the organic compound includes ~~at least one each of~~ a proton-donating functional group showing Bronsted acid and a functional group having a non-covalent electron pair.
2. (Currently Amended) The electroluminescent device according to claim 1, ~~having a characteristic of wherein~~ the proton-donating functional group is any one functional group selected from a group of a hydroxyl group, a carboxyl group and a mercapto group.
3. (Currently Amended) The electroluminescent device according to claim 1, ~~having a characteristic of wherein~~ the functional group having the non-covalent electron pair is any one functional group selected from a group of a heterocyclic residue group, an azomethine group and a carbonyl group.
4. (Currently Amended) The electroluminescent device according to claim 1, ~~having a characteristic of wherein~~ the proton-donating functional group is any one functional group selected from a group of a hydroxyl group, a carboxyl group and a mercapto group, and the functional group having the non-covalent electron pair is any one functional group selected from a group of a heterocyclic residue group, an azomethine group and a carbonyl group.

5. (Currently Amended) The electroluminescent device according to claim 1, ~~having a characteristic of wherein~~ the metal salt is ~~any one selected from~~ a group of a metal acetate salt, a metal halide and a metal alkoxide.

6. (Currently Amended) An electroluminescent device comprising:  
 at least an anode;  
 a cathode; and  
 an electroluminescent layer provided between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer includes a layer formed by co-deposition of an organic compound and a metal salt, and the organic compound is a compound represented by a following general formula (1):

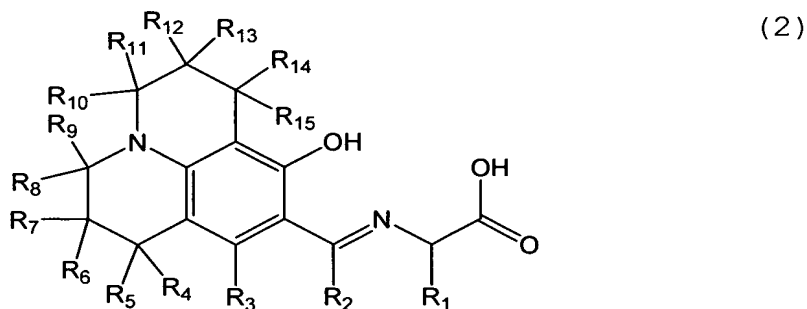


(wherein  $R_1 - R_6$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), ~~or and~~ a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms); And including cases of  $R_3$  and  $R_4$ ,  $R_4$  and  $R_5$  or  $R_5$  and  $R_6$  ~~may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to~~ 1 - 20 carbon atoms). ~~And and~~  $R_1$  and  $R_2$  ~~may be being~~ mutually bonded to form a pyridine ring).

7. (Currently Amended) An electroluminescent device comprising:  
 at least an anode;  
 a cathode; and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of~~ wherein the electroluminescent layer includes a layer formed by co-deposition of an organic compound and a metal salt, and the organic compound is a compound represented by a following general formula (2):



(wherein  $R_1 - R_{15}$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxyl group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), ~~or~~ and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms); And including a case of  $R_1$  and  $R_2$  ~~may be being~~ mutually bonded to form a pyridine ring).

8. (Currently Amended) An electroluminescent device comprising:

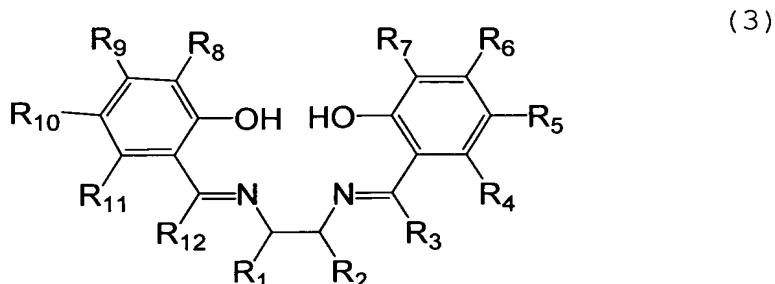
at least an anode;

a cathode; and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of~~ wherein the electroluminescent layer includes a layer formed by co-deposition of an organic compound and a metal salt, and the

organic compound is a compound represented by a following general formula (3):



(wherein R<sub>1</sub> - R<sub>12</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), ~~or~~ and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). And including cases of R<sub>1</sub> and R<sub>2</sub> ~~may be being~~ mutually bonded to form a cycloalkane structure, a benzene ring or poly-condensed rings (~~however limited to~~ 1 to 20 carbon atoms). And, R<sub>4</sub> and R<sub>5</sub>, R<sub>5</sub> and R<sub>6</sub>, R<sub>6</sub> and R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub>, R<sub>9</sub> and R<sub>10</sub> or R<sub>10</sub> and R<sub>11</sub> ~~may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to~~ 1 - 20 carbon atoms). And, and R<sub>2</sub> and R<sub>3</sub> or R<sub>1</sub> and R<sub>12</sub> ~~may be being~~ mutually bonded to form a pyridine ring).

9. (Currently Amended) An electroluminescent device comprising:

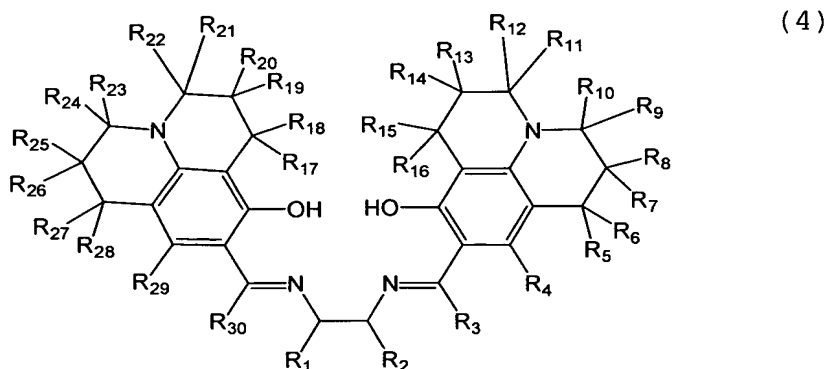
at least an anode;

a cathode; and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer includes a layer formed by co-deposition of an organic compound and a metal salt, and the

organic compound is a compound represented by a following general formula (4):



(wherein  $R_1 - R_{30}$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxyl group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), or a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And, including cases of~~  $R_1$  and  $R_2$  ~~may be being~~ mutually bonded to form a cycloalkane structure, a benzene ring or poly-condensed rings (~~however limited to~~ 1 to 20 carbon atoms). ~~And and~~  $R_2$  and  $R_3$  or  $R_1$  and  $R_{30}$  ~~may be being~~ mutually bonded to form a pyridine ring).

10. (Currently Amended) An electroluminescent device including:

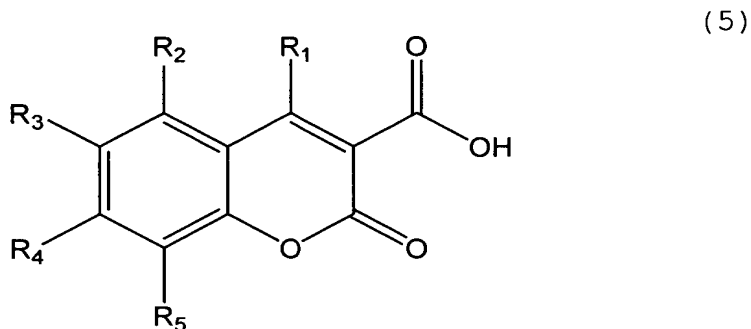
~~at least~~ an anode;<sub>i</sub>

a cathode;<sub>i</sub> and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer includes a layer formed by co-deposition of an organic compound and a metal salt, and the

organic compound is a compound represented by a following general formula (5):



(wherein R<sub>1</sub> - R<sub>5</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), or and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And, including cases of~~ R<sub>4</sub> ~~may represent any~~ representing one of an amino group, a dialkylamino group, and an arylamino group. ~~And, R<sub>2</sub> and R<sub>3</sub>, R<sub>3</sub> and R<sub>4</sub> or R<sub>4</sub> and R<sub>5</sub> may be being mutually bonded to form a benzene ring or poly-condensed rings (however limited to 1 to 20 carbon atoms). And, and R<sub>3</sub> and R<sub>4</sub>, or R<sub>4</sub> and R<sub>5</sub> may be being mutually bonded to form a julolidine skeleton).~~

11. (Currently Amended) The electroluminescent device according to any one of claims 6 to 10,

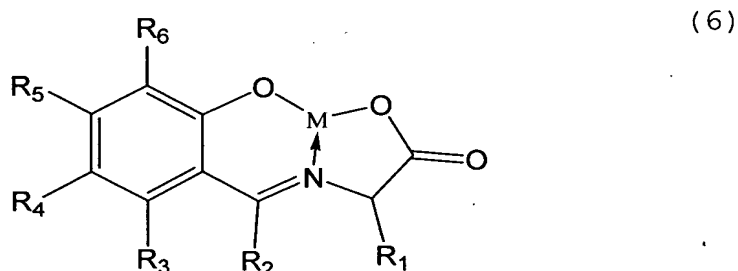
~~having a characteristic of wherein~~ the metal salt is ~~any material selected from a group one~~ of a metal acetate salt, a metal halide and a metal alkoxide.

12. (Currently Amended) The electroluminescent device according to any one of claims 6 to 10,

~~having a characteristic of wherein~~ the metal salt is ~~any~~ comprises one ~~material selected from a group~~ of zinc, aluminum, silicon, gallium and zirconium.

13. (Currently Amended) An electroluminescent device comprising:

at least an anode;  
 a cathode; and  
 an electroluminescent layer ~~provided~~ between the anode and the cathode,  
~~having a characteristic of wherein~~ the electroluminescent layer is formed by co-deposition of an organic compound and a metal salt, and includes a metal complex having a structure represented by a following general formula (6):

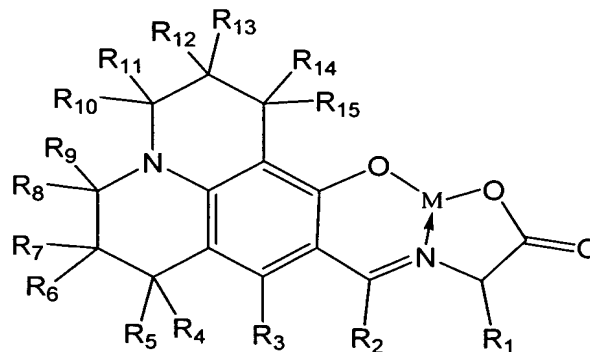


(wherein M represents a saturated or unsaturated metal ion; R<sub>1</sub> - R<sub>6</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), ~~or~~ and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And, including cases of~~ R<sub>3</sub> and R<sub>4</sub>, R<sub>4</sub> and R<sub>5</sub> or R<sub>5</sub> and R<sub>6</sub> ~~may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to~~ 1 - 20 carbon atoms). ~~And~~ and R<sub>1</sub> and R<sub>2</sub> ~~may be being~~ mutually bonded to form a pyridine ring).

14. (Currently Amended) An electroluminescent device comprising:  
 at least an anode;  
 a cathode; and  
 an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer is formed by co-deposition of an organic compound and a metal salt, and includes a metal complex having a structure represented by a following general formula (7):

(7)



(wherein M represents a saturated or unsaturated metal ion; and R<sub>1</sub> - R<sub>15</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), ~~or~~ and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And,~~ including a case of R<sub>1</sub> and R<sub>2</sub> ~~may be being~~ mutually bonded to form a pyridine ring).

15. (Currently Amended) An electroluminescent device comprising:

at least an anode;

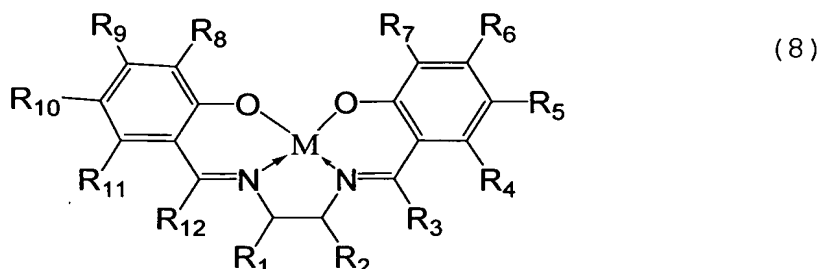
a cathode; and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer is formed by co-deposition of an organic compound and a metal salt, and includes a metal



complex having a structure represented by a following general formula (8):



(wherein M represents a saturated or unsaturated metal ion; and R<sub>1</sub> - R<sub>12</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), or a substituted ~~or~~ and non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And,~~ including cases of R<sub>1</sub> and R<sub>2</sub> ~~may be being~~ mutually bonded to form a cycloalkane structure, a benzene ring or poly-condensed rings (~~however limited to~~ 1 to 20 carbon atoms). ~~And,~~ R<sub>4</sub> and R<sub>5</sub>, R<sub>5</sub> and R<sub>6</sub>, R<sub>6</sub> and R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub>, R<sub>9</sub> and R<sub>10</sub> or R<sub>10</sub> and R<sub>11</sub> ~~may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to~~ 1 - 20 carbon atoms). ~~And,~~ and R<sub>2</sub> and R<sub>3</sub> or R<sub>1</sub> and R<sub>12</sub> ~~may be being~~ mutually bonded to form a pyridine ring).

16. (Currently Amended) An electroluminescent device comprising:

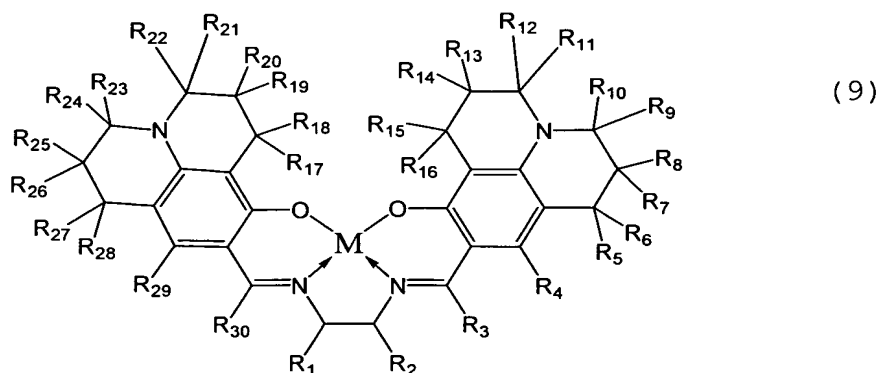
at least an anode;

a cathode; and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer is formed by co-deposition of an organic compound and a metal salt, and includes a metal

complex having a structure represented by a following general formula (9):



(wherein M represents a saturated or unsaturated metal ion; and  $R_1 - R_{30}$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), or and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And, including cases of~~  $R_1$  and  $R_2$  ~~may be being~~ mutually bonded to form a cycloalkane structure, a benzene ring or poly-condensed rings (~~however limited to~~ 1 to 20 carbon atoms). ~~And~~ and  $R_2$  and  $R_3$  or  $R_1$  and  $R_{30}$  ~~may be being~~ mutually bonded to form a pyridine ring).

17. (Currently Amended) An electroluminescent device comprising:

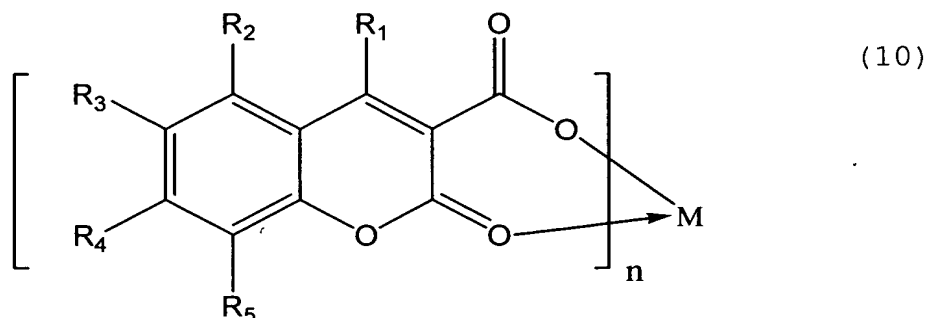
at least an anode;<sub>1</sub>

a cathode;<sub>1</sub> and

an electroluminescent layer ~~provided~~ between the anode and the cathode,

~~having a characteristic of wherein~~ the electroluminescent layer is formed by co-deposition of an organic compound and a metal salt, and includes a metal

complex having a structure represented by a following general formula (10):



(wherein M represents a saturated or unsaturated metal ion,  $R_1 - R_5$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to 1 - 10 carbon atoms~~), an alkoxyl group (~~however limited to 1 - 10 carbon atoms~~), a substituted or non-substituted aryl group (~~however limited to 1 - 20 carbon atoms~~), or and a substituted or non-substituted heterocyclic residue group (~~however limited to 1 - 20 carbon atoms~~), and n represents an integer from 1 to 4. And, including cases of  $R_4$  may represent any representing one of an amino group, a dialkylamino group, and an arylamino group. ~~And,  $R_2$  and  $R_3$ ,  $R_3$  and  $R_4$  or  $R_4$  and  $R_5$  may be being mutually bonded to form a benzene ring or poly-condensed rings (however limited to 1 to 20 carbon atoms). And, and  $R_3$  and  $R_4$ , or  $R_4$  and  $R_5$  may be being mutually bonded to form a julolidine skeleton. And n represents an integer from 1 to 4).~~

18. (Currently Amended) The electroluminescent device according to any one of claims 13 to 17, ~~having a characteristic of~~ wherein the saturated or unsaturated metal ion is constituted of any element selected from comprises one of zinc, aluminum, silicon, gallium and zirconium.

19. (Currently Amended) A method for manufacturing an electroluminescent device comprising at least an anode, a cathode and an electroluminescent layer ~~provided~~ between the anode and the cathode and including at least one or plural organic compound layers layer, having a characteristic of a step comprising the step of:

forming at least one of the organic compound layers ~~comprises~~ comprising a step of co-depositing an organic compound including ~~at least one~~ each of a proton-donating functional group showing Bronsted acid ~~and~~ a functional group having a non-covalent electron pair, and a metal salt.

20. (Currently Amended) The method for manufacturing the electroluminescent device according to claim 19, ~~having a characteristic of~~ wherein the proton-donating functional group is ~~any functional group selected from a group~~ one of a hydroxyl group, a carboxyl group and a mercapto group.

21. (Currently Amended) The method for manufacturing the electroluminescent device according to claim 19, ~~having a characteristic of~~ wherein the functional group having the non-covalent electron pair is ~~any functional group selected from a group~~ one of a heterocyclic residue group, an azomethine group and a carbonyl group.

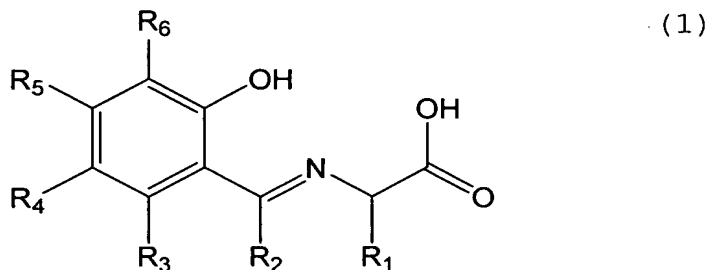
22. (Currently Amended) The method for manufacturing the electroluminescent device according to claim 19, ~~having a characteristic of~~ wherein the proton-donating functional group is ~~any functional group selected from a group~~ one of a hydroxyl group, a carboxyl group and a mercapto group, and the functional group having the non-covalent electron pair is ~~any functional group selected from a group~~ one of a heterocyclic residue group, an azomethine group and a carbonyl group.

23. (Currently Amended) The method for manufacturing the electroluminescent device according to claim 19, ~~having a characteristic of~~ wherein the metal salt is ~~any one selected from a group~~ of a metal acetate salt, a metal halide and a metal alkoxide.

24. (Currently Amended) A method for manufacturing an electroluminescent device comprising at least an anode, a cathode and an

electroluminescent layer ~~provided~~ between the anode and the cathode including at least one or plural organic compound layers layer, comprising the step of:

~~having a characteristic of a step of~~ forming at least one of the organic compound layers ~~comprises~~ comprising a step of co-depositing an organic compound represented by a following general formula (1) and a metal salt:

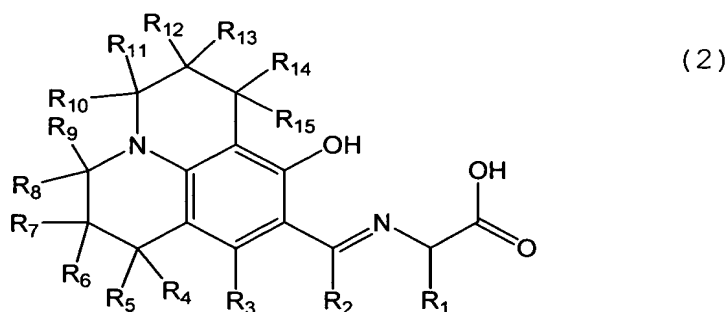


(wherein R<sub>1</sub> - R<sub>6</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxy group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 10 carbon atoms), or and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). And, including the cases of R<sub>3</sub> and R<sub>4</sub>, R<sub>4</sub> and R<sub>5</sub> or R<sub>5</sub> and R<sub>6</sub> ~~may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to~~ 1 - 20 carbon atoms). And and R<sub>1</sub> and R<sub>2</sub> ~~may be being~~ mutually bonded to form a pyridine ring).

25. (Currently Amended) A method for manufacturing an electroluminescent device comprising at least an anode, a cathode and an electroluminescent layer ~~provided~~ between the anode and the cathode including at least one or plural organic compound layers layer, comprising the step of:

~~having a characteristic of a step of~~ forming at least one of the organic compound layers ~~comprises~~ comprising a step of co-depositing an organic

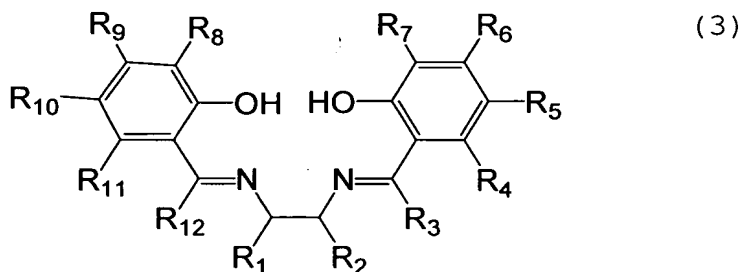
compound represented by a following general formula (2) and a metal salt:



(wherein  $R_1 - R_{15}$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxyl group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-substituted aryl group (~~however limited to~~ 1 - 20 carbon atoms), ~~or~~ and a substituted or non-substituted heterocyclic residue group (~~however limited to~~ 1 - 20 carbon atoms). ~~And, including a case of~~  $R_1$  and  $R_2$  may be being mutually bonded to form a pyridine ring).

26. (Currently Amended) A method for manufacturing an electroluminescent device comprising at least an anode, a cathode and an electroluminescent layer ~~provided~~ between the anode and the cathode including at least one or plural organic compound layers layer, comprising the step of:

~~having a characteristic of a step of~~ forming at least one of the organic compound layers ~~comprises~~ comprising a step of co-depositing an organic compound represented by a following general formula (3) and a metal salt:

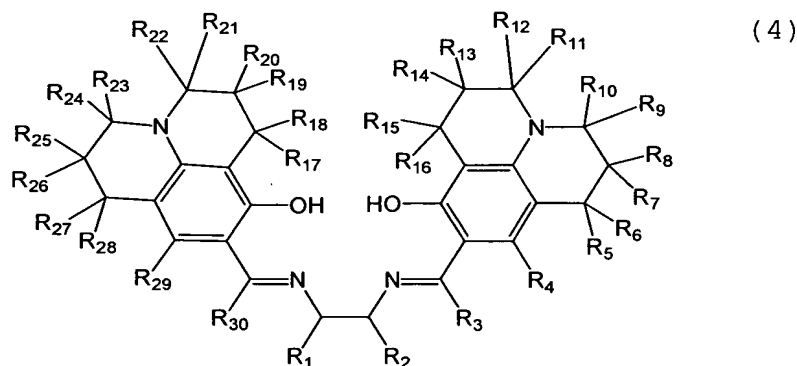


(wherein  $R_1 - R_{12}$  each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to~~ 1 - 10 carbon atoms), an alkoxyl group (~~however limited to~~ 1 - 10 carbon atoms), a substituted or non-

substituted aryl group (~~however limited to 1 - 20 carbon atoms~~), ~~or~~ and a substituted or non-substituted heterocyclic residue group (~~however limited to 1 - 20 carbon atoms~~). ~~And, including cases of R1 and R2 may be being~~ mutually bonded to form a cycloalkane structure, a benzene ring or poly-condensed rings (~~however limited to 1 to 20 carbon atoms~~). ~~And, R4 and R5, R5 and R6, R6 and R7, R8 and R9, R9 and R10 or R10 and R11 may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to 1 - 20 carbon atoms~~). ~~And, and R2 and R3 or R1 and R12 may be being~~ mutually bonded to form a pyridine ring).

27. (Currently Amended) A method for manufacturing an electroluminescent device comprising at least an anode, a cathode and an electroluminescent layer ~~provided~~ between the anode and the cathode including at least one or plural organic compound layers layer, comprising the step of:

~~having a characteristic of a step of~~ forming at least one of the organic compound layers ~~comprises comprising~~ a step of co-depositing an organic compound represented by a following general formula (4) and a metal salt:

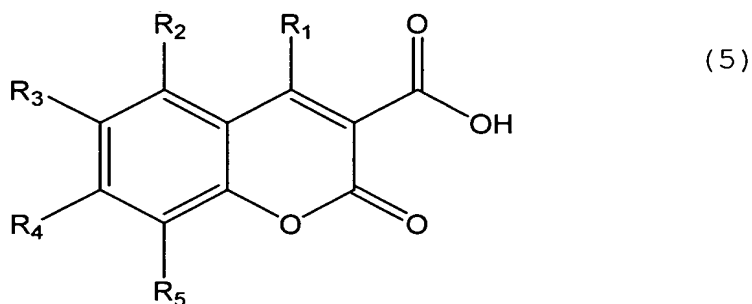


(wherein R<sub>1</sub> - R<sub>30</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to 1 - 10 carbon atoms~~), an alkoxyl group (~~however limited to 1 - 10 carbon atoms~~), a substituted or non-substituted aryl group (~~however limited to 1 - 20 carbon atoms~~), ~~or~~ and a

substituted or non-substituted heterocyclic residue group (~~however limited to 1 - 20 carbon atoms~~). ~~And, including cases of R<sub>1</sub> and R<sub>2</sub> may be being~~ mutually bonded to form a cycloalkane structure, a benzene ring or poly-condensed rings (~~however limited to 1 to 20 carbon atoms~~). ~~And and R<sub>2</sub> and R<sub>3</sub> or R<sub>1</sub> and R<sub>30</sub> may be being~~ mutually bonded to form a pyridine ring).

28. (Currently Amended) A method for manufacturing an electroluminescent device comprising at least an anode, a cathode and an electroluminescent layer ~~provided~~ between the anode and the cathode including at least one or plural organic compound layers layer, comprising the step of:

~~having a characteristic of a step of~~ forming at least one of the organic compound layers ~~comprises~~ comprising a step of co-evaporating an organic compound represented by a following general formula (5) and a metal salt:



(wherein R<sub>1</sub> - R<sub>5</sub> each represents one of a hydrogen element, a halogen element, a cyano group, an alkyl group (~~however limited to 1 - 10 carbon atoms~~), an alkoxy group (~~however limited to 1 - 10 carbon atoms~~), a substituted or non-substituted aryl group (~~however limited to 1 - 20 carbon atoms~~), ~~or and~~ a substituted or non-substituted heterocyclic residue group (~~however limited to 1 - 20 carbon atoms~~). And, including cases of R<sub>4</sub> may represent any representing one of an amino group, a dialkylamino group, and an arylamino group. ~~And, R<sub>2</sub> and R<sub>3</sub>, R<sub>3</sub> and R<sub>4</sub> or R<sub>4</sub> and R<sub>5</sub> may be being~~ mutually bonded to form a benzene ring or poly-condensed rings (~~however limited to 1 to 20 carbon atoms~~). ~~And, and R<sub>3</sub> and R<sub>4</sub>, or R<sub>4</sub> and R<sub>5</sub> may be being~~ mutually bonded to form a julolidine skeleton).



29. (Currently Amended) The method for manufacturing the electroluminescent device according to any one of claims 24 to 28, ~~having a characteristic of~~ wherein the metal salt is ~~any material selected from a group one~~ of a metal acetate salt, a metal halide and a metal alkoxide.

30. (Currently Amended) The method for manufacturing the electroluminescent device according to any one of claims 24 to 28, ~~having a characteristic of~~ wherein the metal salt includes ~~any metal element selected from a group one~~ of zinc, aluminum, silicon, gallium and zirconium.